HBeAg(+) patients.

Conclusion: The persistency of HBeAg could induce higher expression of PD-1 and CTLA-4 on the HBV-specific T cells, which may associate with the low ability of HBV-specific T-cell responses, high serum HBV DNA levels and high percentage of liver cirrhosis in HBeAg(+) CHB patients.

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Clinical and Virological Features and Course of Acute Hepatitis B (AHB) in Italy

E. Spada[1,*], M.E. Tosti[1], L. Romanò[2], C. Galli[3], A. Mariano[4], L. Germagnoli[5], F. Dorigatti[5], M. Marinelli[5], A. Zanetti[2], A. Mele[1]

[1] *Istituto Superiore di Sanità, Roma, Italy*
[2] *Istituto di Virologia, Università di Milano, Milano, Italy*
[3] *Abbott Diagnostici, Roma, Italy*
[4] *Istituto Nazionale di Malattie Infettive - Spallanzani, Roma, Italy*
[5] *Diagnostica e Ricerca San Raffaele S.p.A., Milano, Italy*

Background/aims: In order to define the clinical, serological and virological aspects, including viral genotypes and mutations, of acute hepatitis B virus infection (AHB) a prospective study has been carried out in Italy.

Methods: AHB cases referred to 17 hospitals were recruited over 1 year and followed-up for 6 months. Biochemical and virological assessments were done 7, 15, 30 days after disease onset, and then at 3-month interval.

Results: Overall, 111 patients were enrolled. All patients were IgM anti-HBc+, 108 were HBsAg+ and 70 of the 72 patients tested for HBV-DNA were positive. A preliminary analysis was performed on 99 of 111 cases: 21 were followed-up for > 6 months, 25 for 3—6 months, 53 for 6 months (95.2%). HBV-DNA negativization occurred after HBsAg negativization, but after a 6-month follow-up results on HBsAg and HBV-DNA were concordant. The frequency of HBV genotype in 49 patients was: genotype D, 59.2%; genotype A, 36.7%; genotype F, 4.1%. Core/pre-core mutants, detected in 21of 34 patients examined (61.8%), were more frequent in genotype D infection.

Conclusion: The frequent detection of anti-HBe+ and anti-HBe/HBeAg+ patients in the early disease phase, as well as the long-lasting persistence of IgM anti-HBc, represents novel findings in the field of AHB. The correlation between HBsAg and HBV-DNA makes HBsAg a useful marker of virus clearance. Genotype distribution and core/per-core mutations frequency confirm previous findings.

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Incidence, Risk Factors and Control of Hepatitis A in Italy

M.E. Tosti*, E. Spada, A. Mele

Istituto Superiore di Sanità, Rome, Italy

Introduction: Improvements in hygiene and sanitation standards have determined a dramatic decrease in HAV circulation in Italy. HAV exposure is now less common during childhood, while a growing number of susceptible young adults has developed. Using data of the Italian surveillance system of acute hepatitis (SEIEVA), we evaluated the incidence of and risk factors for acute hepatitis A (AHA).

Methods: We performed a case-control study within a population-based surveillance for acute viral hepatitis. AHA incidence was estimated since 1991; the association with considered risk factors was analysed during 2001—2006, using cases of acute hepatitis B (AHB) as controls

Results: The incidence declined from 4/100,000 in 1991 to 1.4/100,000 in 2006, peaking during 1996—97 due to an outbreak in South Italy. The incidence was higher in persons aged 15—24 years. The lethality was 2.9/10,000. During the period 1991—2006 82 cases were notified among vaccinated subjects: 95% of these HAV cases received vaccine within 1 months from the onset. Contact with individuals with AHA (ORadj = 3.8; 95%CI 2.7—5.5) travelling to endemic areas (ORadj = 3.1; 95%CI = 2.6—3—8) ingestion of raw shellfish (ORadj = 1.8; 95%CI = 1.6—2.1) and cohabitation with a day-care child (ORadj = 1.3; 95%CI = 1.01—1.7) were the most important risk factors. In 2003 intravenous drug use caused an outbreak, with high lethality in a central Italian town. In this analysis, male homosexuality was not associated with AHA, while a weak association was found by using acute hepatitis C cases as controls (ORadj = 1.44 CI, 95%CI = 1.06—1.95).

Discussion: HAV infections is nowadays more frequent in adults, in which the disease is more severe. Travel in endemic areas and contact with AHA cases are the most important risk factors, while shellfish consumption has become a less frequent way for acquiring AHA. Vaccination of individuals at increased risk of infection combined with surveillance of retail outlet of shellfish are efficient control measures.

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Risk of Parenteral Transmitted Hepatitis Following Exposure to Invasive Procedures (IP): Results from the Hepatitis Surveillance System in Italy

E. Spada*, M.E. Tosti, A. Mele

Istituto Superiore di Sanità, Rome, Italy

Background and aims: Invasive procedures (IP) are frequently reported risk factor for both acute hepatitis B (AHB) and C (AHC). We estimated the association between parenteral viral hepatitis and specific types of IP.

Methods: Data from the surveillance for acute viral hepatitis during 2000—2006 were used. The association of AHB and AHC with different IP was estimated comparing 3,506